

stamina 6, libera; antherae 1.8–2 mm. longae, luteae, glabrae, apice mucronatae; ovarium oblongum, basi attenuatum, superne pilosum; stylus pilosus. Fructus?

NEW GUINEA: foothill forests, Borabere, alt. 360 m., *L. J. Brass*, no. 715, Nov. 30, 1925.

This species is called LINOO by the natives.

In the arrangement of its inflorescence this species recalls *B. Griffithiana* Munro, but differs in the more numerous flowers of the spikelets, in the mucronulate anthers, elongated style, the hairy apex of the ovary and finally in its sheaths and ligulae being glabrous at least in the fully developed leaves. It also resembles *B. Thorelii* G. Camus in the arrangement of the inflorescence, but the leaves are much larger, have 9–10 pairs of secondary veins with numerous intermediary veins, and are somewhat tessellate.

SOME NONDESCRIPT PIPERS FROM NEW GUINEA.

WILLIAM TRELEASE

THE following species form part of a collection of woody plants made in New Guinea in 1926–27 by Mr. L. J. Brass for the Arnold Arboretum. Ninety-three species of Pipers have been recorded for New Guinea and the adjacent Bismarck Archipelago and the eleven here described bring the number up to 104. It is not impossible that one or another of these may have been reported heretofore under the name of a non-endemic species; but as I have not seen these collections I am unable to indicate synonymy for any of the present list, though they cannot be reconciled with the characters on which such species rests.

The favorable location of New Guinea, with a diversified area of some 200,000 square miles (twice that of the West Indies and nearly equaling that of Central America) makes it probable that a much larger number of Piperaceae (*Piper* 104; *Peperomia* 22; *Macropiper* 2) may be expected than is now known; and except for the few that have been cultivated, they may be expected to be endemic.

Piper (Eupiper) *arbuscula*, n. sp.

An essentially glabrous compact small tree, 10–12 ft. tall; flowering internodes slender and somewhat elongated; leaves round-ovate, abruptly sharp-acuminate, slightly obliquely cordate, 12–14 × 15–16 cm., multiple-nerved, with about 6 lateral nerves from the base and the midrib with 2 alternate branches from its lower fifth, papery, minutely dark-punctulate beneath; petiole 15–20 mm. long, approximately equaling the open sinus, exceptionally somewhat hirtellous, not winged; pistillate spikes opposite the leaves, curved, 4 × 60 mm., closely flowered; peduncle 5 mm. long, bracts round-peltate; berries orange, ovoid, pointed; stigmas 3, small, sessile.

TYPE LOCALITY: young forest, U-uma river, *L. J. Brass*, no. 1449, May 18, 1926. — Called Boni.

DISTRIBUTION: New Guinea.

Piper (Eupiper) Brassii, n. sp.

A slender nodose glabrous liana, drying dark; flowering internodes 2×20 – 35 mm.; leaves lanceolate, lance-oblong, or the lower lance-ovate, attenuate, acute-based, 3 or 3.5 – 4.5×10 – 12 cm., palmately 5-nerved, the nerves impressed above and salient beneath with numerous ascending cross-veins, chartaceous and glossy; petiole about 5 mm. long, neither channelled nor winged; spikes opposite the leaves, slender and long (becoming 2×200 mm.) densely flowered; peduncle 20–30 mm. long; bracts round-peltate; fruit unknown.

TYPE LOCALITY: Iawarere, at 350 m. alt., in the foothill forest, *L. J. Brass*, no. 683, Nov. 24, 1925.

DISTRIBUTION: New Guinea.

Piper (Eupiper) corylistachyopse, n. sp.

A climbing shrub; flowering internodes thick (5 mm.) and short, dingy-velvety; leaves oblong, sharp-acuminate, rounded at base or minutely cordulate, with one side barely perceptibly shorter, 4.5 – 7×14 – 19 cm., pinnately nerved from below about the middle, the nerves 5 or 6×2 gradually congested downwards, drying dull and papery, dingy-velvety beneath; petiole $10 + 1$ mm. long, velvety, channelled, sheathing below; pistillate spikes opposite the leaves, 5×20 – 30 mm., densely flowered; peduncle stout, recurving, 10–15 mm. long; bracts round-peltate; ovary sessile; stigmas 3, linear, sessile.

TYPE LOCALITY: rain-forest, Sogeri, at 450 m. alt., *L. J. Brass*, no. 655, Nov. 17, 1925.

DISTRIBUTION: New Guinea.

Piper (Eupiper) flavifructum, n. sp.

A somewhat nodose fleshy scandent or straggling shrub; leaves broadly ovate, acuminate, shallowly (or the lower moderately deeply) cordate, slightly oblique, 7×13 – 11×16 cm., multiple-nerved from the basal 10 or 15 mm., the 7 nerves sparsely hirtellous beneath, dark green, drying thin; petioles 10 or on the lower leaves 30 mm. long, channelled but not winged, somewhat puberulent; pistillate spikes opposite the leaves, in fruit 20×50 mm., loosely flowered; peduncle about 20 mm. long, at most locally and obscurely puberulent; bracts round-peltate; berries yellow, pyriform, stipitate for an equal length, glabrous; stigmas 3, sessile, short.

TYPE LOCALITY: swampy rain-forest on the Domara River, *L. J. Brass*, no. 1644, June 4, 1926.

DISTRIBUTION: New Guinea.

Piper (Eupiper) fragrans, n. sp.

A somewhat succulent nodose glabrous shrub, decumbent, and rooting from some nodes; flowering internodes rather slender and short (2×15 – 25 mm.), finely striate; leaves ovate, acuminate, round-based, 4.5×8 – $5.5 \times$